

Dynamics and structure of the Russia's population in the future*

In the article the author is giving probable variants of Russia's demographic development on the basis of the analysis of the statistical and sociological researches' data.

Demographic development, death rate, birth rate, reproductive purposes, population forecast.



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One of the basic Russia's civilization challenges is the demographic situation. At the period of Russia's depopulation, having been in its latent stage in 1992, it is possible to point out three stages:

1) from 1992 to 2000 – the increasing rates of the natality reduction, demographic losses are reduced due to migration, including repatriates;

2) from 2000 to 2009 – the decrease of the population loss' rates;

3) in 2009 – the insignificant increase in the total population number due to the migratory component was observed. For the end of the year of 2009 the statistics gives the data on some population increase – for 23.3 thousand people – in comparison with the beginning of the same year. However this year the process of the population reproduction has had the negative dynamics, the natural decrease was 249,426 people. In 2009 1,764164 people were born and 2,013590 people died. The certain extremely insignificant population stabilization was achieved due to the positive balance of the international migration (+ 247,449 people).

The change of the population age structure is a distinctive feature of the present times. In Russia the share and the number of the children's cohorts reduced from the beginning of the XXI century (*tab. 1*).

From 2001 to 2007 the number of children at the age of 5 – 9 years decreased for 1 million 386 thousand people, and in the cohorts of 10 – 14 years the number decreased for 5 million 36 thousand people. These demographic losses could be even higher. However, due to some birth rate increase during the economic growth the number of little Russians (0 – 4 years) increased for 856 thousand people.

For a simple generations' reproduction approximately from 2.10 to 2.15 births for each woman of the reproductive age are necessary. Actually in 2003 this parameter made 1.31 births, and in 2007 it made 1.40. In spite of the fact that for the following two years the birth rate was increasing, it was not enough for overcoming depopulation.

The economic crisis, which began in 2008, ran up its pike in 2009. For the beginning of 2009 the number of children made 26 055.4 thousand people, or 18.4% of the total popu-

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Table 1. Population distribution according to the age groups (for the beginning of a year) during the economic growth in the Russian Federation

Population	Thousand people			Percentage to the result		
	2001*	2006	2007	2001	2006	2007
Total population	146,304	142,754	142,221	100	100	100
Including at the age of						
0 – 4	6,367	7,037	7,223	4.4	4.9	5.1
5 – 9	7,762	6,418	6,376	5.3	4.5	4.5
10 – 14	11,789	7,790	7,283	8.1	5.5	5.1
15 – 19	12,322	11,825	11,088	8.4	8.3	7.8
Of the total population at the age						
younger than able-bodied	28,387	23,317	22,718	19.4	16.3	16.0
able-bodied**	88,040	90,328	90,152	60.2	63.3	63.4
older than able-bodied	29,877	29,109	29,351	20.4	20.4	20.6

* The population is corrected in view of the results of the All-Russia census of enumeration in 2002.
** Men at the age of 16-59, women at the age of 16-54.
Source: Russia in figures – 2008 (http://www.gks.ru/bgd/regl/b08_11/IssWWW.exe/Stg/d01/05-02.htm).

Table 2. Parameters of the natural population dynamics for the period of the years 2008 and 2009 (from January to July)

	January – July						For a thousand people (2008) as a whole
	Thousand people			For a thousand people ¹			
	2009	2008	Increase (+), reduction (-)	2009	2008	%, 2009 to 2008	
Born	1012.6	975.0	+37.6	12.3	11.8	104.2	12.1
Dead	1196.6	1245.7	-49.1	14.5	15.1	96.0	14.6
Including the children died at the age of till 1 year	8.2	8.6	-0.4	8.1**	9.0**	90.0	8.5**
Natural reduction	-184.0	-270.7		-2.2	-3.3	66.7	-2.5
Marriages	612.1	580.1	+32.0	7.4	7.0	105.7	8.3
Divorces	401.1	410.5	-9.4	4.9	5.0	98.0	5.0

* Here and further in a section the parameters of the monthly operative reporting are resulted in recalculation for a year.
** For 1000 new-born children.

lation. However, despite of the worsening economic situation in the first six months of 2009, the number of the new-born children exceeded the same parameter of the pre-crisis period of 2008 for 4.2%. In 2009 the death rate among the children at the age of till 1 year decreased. These rather successful data are likely to be connected with the number of the so-called “pre-crisis” children (*tab. 2*).

The birth rate increase was observed in 74 subjects of the Russian Federation, and the death rate decrease took place in 70 subjects. As a whole in the country the death rate exceeded the birth rate in 1.2 times (at the period from January to July, 2008 the excess made 1.3 times), in 2 subjects of the Russian Fed-

eration (the Tula and the Pskov Areas) it made 2.0 – 2.1 times.

The natality at the period from January to July of 2009 was observed in 22 subjects of the Russian Federation (to compare: from January to July of 2008 it was observed in 19 subjects)¹. The parameters of the birth rate at the beginning of 2010 are non-stable. The number of the new-born children decreased in 67 subjects of the Russian Federation. As a whole in the country the factors of the birth rate, the death rate and the natality increase for the first quarter of 2010 are more positive, in comparison with the corresponding period of 2009 (*tab. 3*).

¹ http://www.gks.ru/bgd/free/b09_00/IssWWW.exe/Stg/d08/8-0.htm

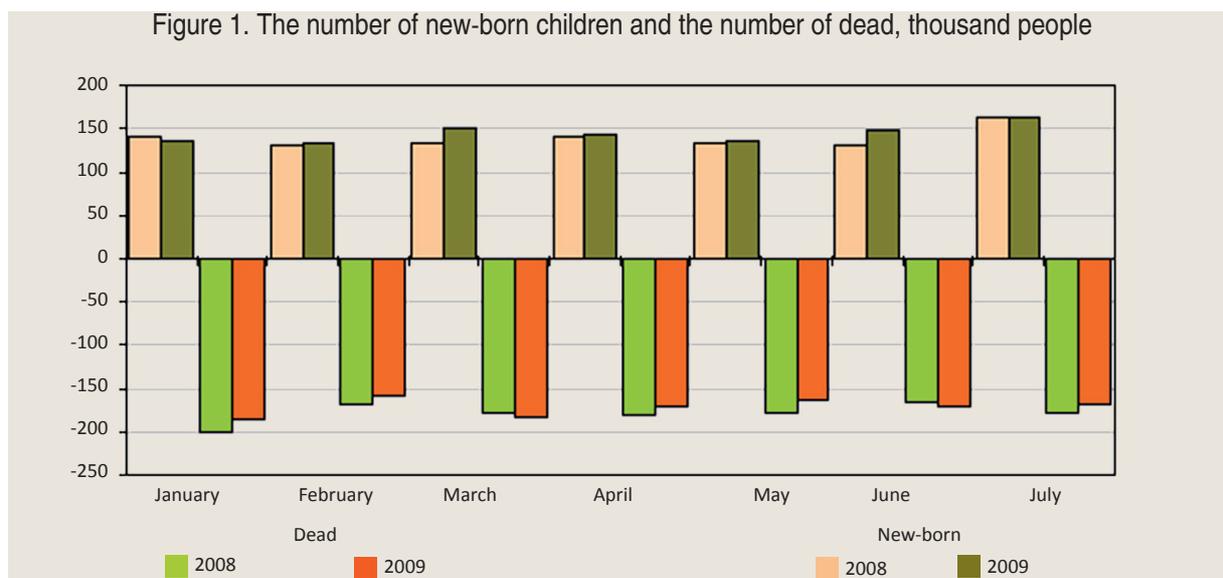


Table 3. The factors of the birth rate, the death rate and the natality increase for the period from January to March, 2010

Born			Dead			Natural increase (+), reduction (-)	
2010	2009	%, 2010 to 2009	2010	2009	%, 2010 to 2009	2010	2009
12.2	12.1	100.8	14.7	15.0	98.0	-2.5	-2.9

Source: http://www.gks.ru/free_doc/2010/demo/edn03-10.htm

It is possible to agree with L. L. Rybakovsky, that the key parameters of the country’s demographic development remain dangerous for the Russia’s future, its geopolitical status and the necessary level of the national safety². First of all it is connected with the low birth rate.

What will be the dynamics and the structure of the Russia’s population in the future? This question can be answered after having taken advantage of demographic forecasts. The most well-known ones are the data represented by the United Nations Organization. The variants of Russia’s demographic potential for the period till 2050, based on the materials of this international organization.

The data from *table 4* shows that the share and the number of the children’s population (as

² Rybakovsky L.L. Peculiarities of the nowadays demographic situation. Russia’s demographic prospects / ed. by G.V. Osipov, S.V. Ryazantsev. – M.: Econ-Inform, 2008. – P. 95.

well as other cohorts) depend on the forecast models’ variability³.

At favorable demographic tendencies, such as the high birth rate and the low death rate, depopulation in Russia will be overcome by the year of 2040 (*tab. 5*).

According to this forecast variant, by 2050 the aggregate population of Russia will make 133.5 million people. The share of children at the age of 0 – 4 years will increase up to 5.4%, and at the age of 5 – 14 years it will make 10.8% (*tab. 6*).

According to the “low” variant of the forecast, the Russian population will reduce

³ While calculating the suggestions concerning the birth rate were put forward: at the average birth rate the parameter “1.85 children for a woman” is used; at a rather high birth rate it is predicted, that this parameter will be 0.5 children higher than the average variant; at a rather low birth rate the parameter will be 0.5 children lower than the average variant; admittedly about the constant birth rate – for each country the birth rate remains constant at the level observed in 2000 – 2005.

Table 4. Population age groups' forecast in Russia for the period till 2050 (% to the total population)

Population groups	Forecast variant	Year					
		2005	2010	2020	2030	2040	2050
The age from 0 to 14 years	Average	15.1	15.0	15.9	14.2	14.1	15.0
	High	15.1	15.8	19.4	17.7	18.5	20.4
The age from 15 to 59 years	Average	67.8	67.3	62.2	61.2	58.6	52.6
	High	67.8	66.6	59.6	59.5	57.4	52.8
The age from 60 years +	Average	17.1	17.7	21.9	24.6	27.3	32.4
	High	17.1	17.5	21.0	22.8	24.1	26.8

Table 5. Demographic structure of the Russian Federation (high variant forecast)

Indicator	Years									
	2005 – 2010	2010 – 2015	2015 – 2020	2020 – 2025	2025 – 2030	2030 – 2035	2035 – 2040	2040 – 2045	2045 – 2050	
Population change (thousand people)	-561	-215	-169	-257	-359	-297	-139	4	65	
Birth rate for both sexes (thousand people)	1,535	1,835	1,822	1,668	1,533	1,596	1,770	1,909	1,935	
General death rate for both sexes (thousand people)	2,146	2,100	2,041	1,975	1,943	1,942	1,959	1,955	1,920	
Population change (%)	-0.40	-0.15	-0.12	-0.19	-0.26	-0.22	-0.10	0.00	0.05	

to 100.4 million people; it may cause depopulation. The share of children at the age of 0-4 years can decrease to 4 %.

Many states of the world, first of all economically advanced ones, are concerned about population reduction. According to the forecasts, by the year of 2050 depopulation will appear in 45 countries; including the demographic losses of Russia (33 million people), Japan (25 million people), Ukraine (15 million people), and Germany (8.4 million people).

As a whole the population of the Old World will reduce for almost 40 million people. Its demographic future draws the rapt attention both of scientists and politicians. In February, 2008, the European Union Parliament passed a vote on the demographic future of the Region. There were also a number of regulations, which

in our opinion are actual for Russia. First it is noted that the 50-years forecast is not a final verdict, but a serious caution, which should be taken into account by the society if it needs to control competitiveness, economic stability, social unity, generations' solidarity and the socially-directed model of the future; thus it is supposed, that the prospect of the population reduction by 2050 can cause the decrease of pressure on the environment, and will give the opportunity for long development, that, in turn, will need proactive policy for territorial planning, housing, transport and other infrastructural problems' solutions.

Second, the European Parliament reminds, that two main reasons of demographic changes – birth rate collapse and old population growing – are caused by progress: the increas-

Table 6. Demographic structure of the Russian Federation, thousand people (high variant)

Indicator	Year									
	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Population, thousand people	143,170	140,367	137,983	135,406	132,345	128,864	125,387	122,148	119,098	116,097
Men, thousand people	66,400	64,820	63,559	62,283	60,806	59,159	57,594	56,248	55,081	53,969
Women, thousand people	76,770	75,547	74,425	73,123	71,539	69,705	67,793	65,900	64,018	62,129
Ratio, men for 100 women	86.5	85.8	85.4	85.2	85.0	84.9	85.0	85.4	86.0	86.9
Population of 0 – 4, %	4.9	5.4	5.6	5.4	4.9	4.6	4.7	5.1	5.3	5.4
Population of 5 – 14, %	10.2	9.6	10.5	11.3	11.3	10.7	9.9	9.7	10.2	10.8
Population of 15 – 24, %	17.1	14.4	10.6	9.9	11.0	11.9	12.0	11.3	10.4	10.2

ing life expectancy is a direct consequence of scientific progress, advanced hygiene, living standards' increase, and emancipation of women; it goes hand in hand with the increase of the educational level for girls and active women's participation in public life; and it is necessarily to be regarded as the obvious benefit for mankind. Thirdly, the society putting children in the center of its policy, is a necessary condition for the birth rate increase; there is the need of creating well-disposed attitude towards the institution of family and the need of improving families' living conditions making for realization of family potential. Fourthly, it is noted that the average birth rate in EU countries, which is now at the level of 1.5, is not normal; but it does not reflect the real choice of a woman or the real expectations of the European citizens concerning creating families, since many people depend on difficulties connected with combining their work and home life (the lack of preschool educational establishments, the lack of socio-economic support of families, the lack of work for women); in the social environment the anxiety, connected with non-stable workplaces, expensive habitation, and fear in the face of the future (late youth employment and uncertainty in getting work) prevail. Scientists of different countries of the world search ways for overpassing the demographic crisis. The wide-scale statistical research have been carried out by Mikko Myrskylä, Hans-Peter Kohler and Francesco C. Billari. By its results it is clear, that at a very high quality of life the birth rate starts growing. Thus, the only thing for the most advanced countries to do is just "to try a bit", and they will again follow a stable way. In their work the researchers operated with two parameters. The first parameter was the index of human potential development (human development index, or HDI). This complex factor takes into account such data, as life expectancy, educational level and gross national product per head. The second parameter was fertility factor (total fertility rate, or TFR), i.e. the average number of the born children for a woman. One of these factors estimates living

standards; the other one estimates the birth rate. As it was expected, there is negative correlation in the wide interval of the HDI and TFR data: the higher is the quality of life, the lower is birth rate. For instance, in 1975 to year all the data perfectly fit a line. The situation seemed to be hopeless. The further we develop, the lower the birth rate is. However there is one important point. More than 30 years ago the maximum value of HDI parameter was 0.871 (the Norwegians were the leaders then). But by the beginning of the XXI century the situation had changed. According to the data for the year of 2005 which are represented by the researchers, the leader (Australia) had the parameter of 0.966; at present the 1975-leader's parameter was exceeded by 29 countries (there is no Russia among them). And the dependence diagram has essentially changed. The birth rate minimum falls at HDI equal to 9 and after that value the birth rate starts growing. Not rapidly, but considerably and permanently. In the authors' opinion, mankind got the hope that the economic and the scientific development need to be continued⁴.

The results of the latest researches show that the influence of children need is the major factor of formation of a higher birth rate. By the results of the pilot inspection⁵, which have been carried out by Rosstat, it was discovered that difference in the average number of children expectation in the groups of respondents with the identical living standards' estimation, but with different desirable number of children is much more evident, than in groups, having the same desirable number of children, depending on the living standards' estimation. Hence, determining the feature inclination for having children in the greater degree depends on the

⁴ <http://www.infox.ru/science/human/2009/08/07/fertilityraie.phtml>

⁵ http://www.gks.ru/free_doc/2006/demogr.htm The pilot inspection "Family and Birth Rate", carried out by Rosstat in 2006 (in the Tver Area 1,035 people were interrogated, including 488 women, 396 men and 151 teenagers. In Nizhniy Novgorod – 201 people, including 96 women, 65 men and 40 teenagers were interrogated. In Republic Mary El – 187 people, including 91 women, 67 men and 29 teenagers were interrogated).

need for children, than on the living standards' perception, either promoting or interfering its realization. In this connection the two important conclusions for the demographic policy, directed on the birth rate increase, were made: first, the living standards' improvement, the conditions of need for children realization will result in some birth rate increase; second, the change of need for children can give an incommensurably greater result, than the living standards' improvement. It is necessary to carry out both mentioned things. Though the last thing will bring a small, but a rather fast result, and the first thing will bring an incomparably more essential, but a considerably more distant result. Among serious handicaps for a desirable number of children respondents more often mentioned material difficulties. If in earlier studies, the second (and sometimes first) position is usually occupied housing difficulties, in this survey, this situation was only in Nizhniy Novgorod women and men of the Republic of Mari El. The other respondents considered the uncertainty in their future as even a more significant handicap for having a desirable number of children. While investigating reproductive behavior the subject, what prevents to have a greater number of children, is studied. The revealed handicaps are certain to influence the reproductive behavior. But very often respondents consider children to be handicaps in achieving various significant purposes and in realizing their ambitions. This aspect hasn't been paid sufficient attention yet.

Scientists believe that living standards' growth without increasing family values' prestige will further be causing a discord between prestigious consumption and reproductive orientations⁶. In their opinion, the most exact forecast of the future birth rate can be received at youth' and teenagers' orientation to marriage and family. Each historic period has its measurements, change frequency of the consecutive superseding cycles, peculiarities in each phase. At the beginning of the third

millennium Russia entered the epoch of rapid changes in all spheres of its development. The features of the habitual life and social dynamics considerably changed. The world transformed and demanded new understanding on the part of scientists, long-term strategies – on the part of states and politicians, business leaders, the other points of views and actions – of the nowadays generation. In A.I. Antonov's opinion, the need for children is not biologically predetermined and natural. He believes that a person does not have the «instinct of duplication» or any other instinct directly connected with birth of children. It is proved by the fact of the deliberate intervention of a person into the reproductive cycle that excludes automatism of children occurrence⁷. The need for children is a “steady socio-psychological feature of a person, caused, first, by aspiration to have a number of children in a family typical for the given society; second, by love for children, which is deeply acquired conceptions in relation to children in general. Reproductive conceptions first of all represent the norms concerning the number of children in a family”⁸. Formation of the need for children and, accordingly, formation of reproductive conceptions are influenced by many conditions: families ways of life accepted in the society and especially prevailing among the closest environment typical norms concerning the quantity of children; the way of life in the parental family and the quantity of children in it; spouses' conceptions on the quantity and sex of children, considering children as support at an old age, as continuation of a clan, as self-realization in children, etc.

In November, 2008 the pilot demographic research among Moscow schoolchildren of 10 – 11 grades and first-year students was carried out. The mentioned age category was chosen for that sociological research as at this age, the basic conceptions on attitude to family, marriage, and birth of children are formed. Revealing the most significant factors influencing reproductive conceptions of youth at the men-

⁶ Antonov A.I., Borisov V.A. Population dynamics in Russia in the XXI century and demographic policy priorities. – M.: Key-S. – 2006. – P. 57.

⁷ Antonov A.I. Fertility sociology. M., 1980.

⁸ Antonov A.I. Fertility sociology. – M., 1980. – P. 108.

tioned age, can help to determine the directions of the most effective motivation of youth with the purpose of the birth rate stimulation.

The majority of respondents – 87.8% – live with parents, 28.6% live with grandmothers and grandfathers, 38.8% of respondents have brothers or sisters. During the survey such parameters, as desirable and expected quantity of children, were compared. Among the boys the desirable quantity of children was higher, than among the girls: 2.33 and 2.24 accordingly (fig. 2). However the expected quantity of children among the girls is a little bit higher: 2.05 against 2 among the boys, that is not enough for population stabilization.

If to compare the given parameters to the results of students' survey (the desirable quantity of children among men and women is 2.45 and 2.32 accordingly, and the expected quantity of children is 2.11 and 2.08 accordingly), it is possible to conclude, that with the change of the social status from a schoolboy to a student the value of children grows, and among men the increase of this parameter is more considerable.

26.6% of boys and 14.7% of girls agreed with the statement “now it is not the time to give birth to children”.

During the survey the base valuable orientations of schoolchildren were studied; among

them material welfare, living conditions, uncertainty in the future, state of health, difficulties with placing children in preschool establishments, age, matrimonial relations, education, professional occupation, difficulties in bringing up children, number of children in the parental family, motives of children birth, valuable orientations were mentioned.

The following results were received: among the most significant factors robust health (4.62 points on a 5-point scale), education (4.78), material welfare (4.75), and the purpose to have two children (4.63) were mentioned. Such vital priorities as being engaged in favorite business or having three or several children, were of the least interest for respondents. It proves that among the teenagers of the reproductive age the desire to have children in a greater degree is influenced by the psychological conceptions taught at school at the given stage: schoolchildren of the 10th and 11th forms are going to enter higher educations' establishments, choosing, as a rule, the specialty, which will allow them to feel well-provided. It is important, that the value of having two children (4.63) ranks higher than the value of having a family (4.46) or the value of having one child (4.35), that corresponds to the results of the pilot project, which was carried out among students in November, 2008.

Figure 2. Desirable and expected quantity of children (by the results of survey among Moscow schoolchildren and students)

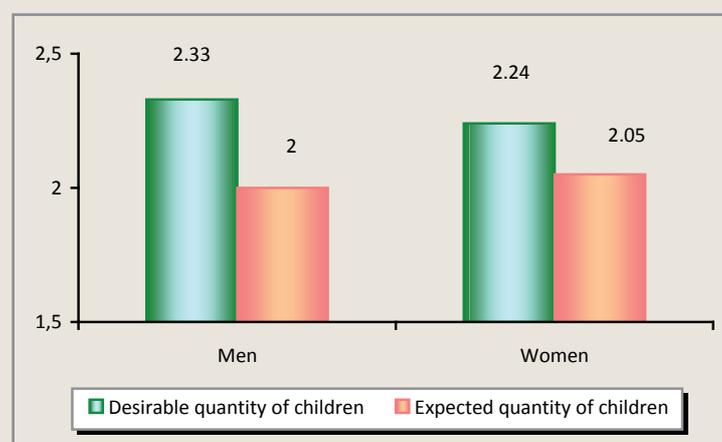


Table 7. Families' reproductive intentions (according to the selective survey "Family and birth rate")

Respondents' age	Expected number of children		Desirable number of children	
	Women	Men	Women	Men
Younger than 25	2.01	2.10	2.34	2.48
25 – 29	1.74	1.98	2.21	2.32
30 – 34	1.78	1.90	2.24	2.34
35 – 39	1.64	1.94	2.38	2.37
40 and older	1.55	1.76	2.27	2.43
Total	1.72	1.90	2.28	2.38

The survey was carried out in 30 subjects of the Russian Federation in 2009. 2000 respondents participated in it.
Source: Russia's children. 2009: stat. bull. / UNICEF; Rosstat. – M.: IRC "Statistics of Russia", 2009. – P. 20.

The analysis of reproductive conceptions prevalent among schoolchildren of the city of Moscow by the results of the pilot project's data, allows drawing the following conclusions:

1. The average desirable number of children is 2.24, and the average expected number is 2.06, that is less than among the first- and second-year students of Moscow.

2. Orientations to the desirable quantity of children among the girls are lower, than among the boys, however only 14.7% of them agree that "now it is not the time to give birth to children". This parameter is much lower than among the boys – their coevals, and it is lower, than the similar parameter among students (26.3% of girls and 46% of boys).

3. Formation of conception on having children is influenced by the quantity of brothers and sisters; however, this dependence is not of fundamental importance.

4. Health is estimated by the respondents as the greatest social value and the most significant factor, determining the expected number of children.

5. The desire to have two children prevails of the desire to have a family or one child.

During the economic growth in Russia a certain improvement of demographic parameters, including reproductive orientations of the senior pupils and the students of the first years of higher education establishments, was achieved. The measures on the support of Russian families' reproductive intentions are

necessary: sociological surveys show, that these intentions are not realized in full measure. It is necessary to pay attention to the fact that young people till 25 years intend to have children in a greater degree, than the other groups of the interrogated people (*tab. 7*).

The staff of ISEPN of the Russian Academy of Science carried out the analysis of both national and foreign forecasts' variants, the expert variant of the population number and structure till 2030 is represented. In our opinion, the population of the country will continue reducing and by the end of the mentioned period it will make 136 million people, that exceeds the data of the best variant of the Russian Federation population's dynamics offered by the United Nations Organization, but it is 9 million people less than the normative parameters contained in the Concept of the country's demographic development.

However our demographic future is not clear. What will the proceeding world crisis bring? The employment level's decrease causes social risks. Therefore more and more important is the realization of the Concept of the country's demographic development till 2025. The conclusion, made by well-known Russian demographers N.V. Zvereva and V.N. Arkhangelsky, is very important. They write: "The new measures of the demographic policy influenced the birth rate increase; so as to avoid the possible recession and not to face with a new "demographic wave", it is necessary

not only to index the existing measures, but also to develop them”⁹. In Russia the fertile population is reducing, the reproductive health is getting poor. People have no opportunity to realize their reproductive conceptions in full measure first of all in connection with the fact, that 2/3 of working people have the lowest payment level, which is supporting neither the

dependents’ reproduction (first of all children), nor the worker himself. Paraphrasing D. Bell, it is possible to tell, that if we want to live in a more perfect society, “we ought to construct the social reality with widely opened eyes”. In our country it is connected with the decrease in incomes’ polarization and differentiation, and with the distributive relations’ enhancement.

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⁹ Zvereva N.V., Arkhangelsky V.N. Modern policy in the field of birth rate in Russia: preliminary results and prospects // *Russia’s demographic prospects and the tasks of the demographic policy. Materials of the scientific&practical conference*, 6 – 8 April, 2010. – Vol. 2. – M., 2010. – P. 16.